

Amendments to the Claims

1. (Original) An injection molding apparatus comprising:

a manifold having a manifold channel for receiving a melt stream of moldable material under pressure;

a manifold plug provided in said manifold, said manifold plug having a manifold plug channel formed therein, said manifold plug channel having an inlet receiving the melt stream from said manifold channel and an outlet delivering the melt stream to a nozzle channel of a nozzle, said manifold plug channel undergoing a change in direction between said inlet and outlet;

a mold cavity receiving said melt stream from said nozzle, said nozzle communicating with said mold cavity through a mold gate;

a valve pin passing through a bore provided in said manifold plug and extending into said manifold plug channel and said nozzle channel, said valve pin being movable to selectively open and close said mold gate; and

a guide projecting from an inner wall of said manifold plug channel, diametrically opposing said inlet, said guide being located behind said valve pin and abutting a portion of said valve pin.

2. (Original) An injection molding apparatus as claimed in claim 1, wherein said guide provides a restriction to the flow of said melt stream.

3. (Original) An injection molding apparatus as claimed in claim 2, wherein said guide is integrally formed with the inner wall of said manifold plug channel.

4. (Currently Amended) An injection molding apparatus as claimed in claim 3, wherein

said guide presents a guide surface extending towards said outlet between ~~of~~ a lower edge of said bore and a predetermined location on an inner surface of said manifold plug channel.

5. (Original) An injection molding apparatus as claimed in claim 4, wherein said inner wall tapers towards said guide surface to form a smooth transition between said inner wall and an edge of said guide surface.

6. (Original) An injection molding apparatus as claimed in claim 5, wherein said guide surface tapers to a point in a direction away from said bore.

7. (Original) A manifold plug comprising:

a manifold plug body including a manifold plug channel having an inlet and an outlet formed therein;

a guide body projecting from an inner wall of said manifold plug body diametrically opposing said inlet, said inlet for aligning with a manifold channel of a manifold and said outlet for aligning with a nozzle channel of a nozzle, said inlet being at an angle to said outlet; and

a guide surface provided on said guide body, said guide surface abutting a downstream portion of a valve pin extending through said manifold plug body.

8. (Original) A manifold plug as claimed in claim 7, wherein said guide facilitates flow of a melt stream of moldable material through said manifold plug channel between said inlet and outlet.

9. (Original) A manifold plug as claimed in claim 8, wherein said guide is integrally formed with said inner wall.

10. (Currently Amended) An injection molding apparatus comprising:

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a manifold having a manifold channel for receiving a melt stream of moldable material under pressure and delivering said melt stream to a nozzle, said manifold channel undergoing a change of direction from an inlet to an outlet and being aligned with a nozzle channel of said nozzle;

a mold cavity for receiving said melt stream from said nozzle, said nozzle channel communicating with said mold cavity through a mold gate;

a valve pin extending through a bore provided in said manifold and through said nozzle channel, said valve pin being movable to selectively open and close said mold gate; and

a guide projecting from an inner wall of said manifold channel, said guide being integrally formed with the inner wall of said manifold channel and diametrically opposing said inlet for restricting the flow of said melt stream, said guide being located behind said valve pin and abutting a portion of said valve pin.

11. (Original) An injection molding apparatus as claimed in claim 10, wherein said guide facilitates flow of said melt stream through said manifold.

Claim 12 (Cancelled).

13. (Currently Amended) An injection molding apparatus as claimed in claim 11 ~~12~~ for use in a dynamic feed application.

14. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 1, wherein said valve pin regulates the flow of said melt stream through said nozzle towards said mold cavity.

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15. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 1, wherein said valve pin regulates the flow of said melt stream through said manifold towards said nozzle and said mold cavity.

16. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 1, wherein said valve pin regulates the flow of said melt stream through said manifold and through said nozzle towards said mold cavity.

17. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 10, wherein said valve pin regulates the flow of said melt stream through said nozzle towards said ~~the~~ mold cavity.

18. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 10, wherein said valve pin regulates the flow of said melt stream through said manifold towards said nozzle and said mold cavity.

19. (Currently Amended) An injection molding apparatus ~~machine~~ as claimed in claim 10, wherein said valve pin regulates the flow of said melt stream through said manifold and through said nozzle towards said mold cavity.

Claim 20 (Cancelled).

Claim 21 (Cancelled).
